

The Reshipment of European Wines to the Dutch East Indies in the Seventeenth Century

Joji NOZAWA¹⁾

オランダ東インド会社による欧州産ワインの再輸出
——17世紀の事例から——

野澤 丈 二

“Outside Europe, wine followed the Europeans.”

Fernand Braudel²⁾

Introduction

As suggested by a once dominant leader of the Annales School particularly in the 1950s and 60s, from the perspective of the *longue durée*, wine certainly followed the Europeans who ventured to explore the rest of the planet from the sixteenth to the eighteenth centuries. In his reflections, he mainly had the South and North America in mind, where missionaries and European colonists even began viticulture. But the East Indies was totally out of his scope as a potential area for mass consumption. Apart from Europe, as well as from its expansion across the Atlantic, how much European wine was actually invested to support the European commercial activities in Asian maritime regions? This essay will attempt to outline the question by particularly looking at the reshipment of European wines from the United Provinces to Asia through the Dutch East India Company (hereafter also abbreviated as VOC) during the seventeenth century.

Over the important roles that the United Provinces played in the European international trade, much ink has been already spilled.³⁾ Taking advantage of its geographic privilege and its outstandingly efficient shipping network, the Dutch dominated European commercial sea lanes, from the sixteenth century onwards. They were particularly good at bulk cargos, such as wine and salt from France and Iberia.⁴⁾ It is also widely known that a part of these products was re-exported to Northern Europe, not only to the Baltic regions but also to Russian ports like Arkhangelsk. In return, the Dutch shippers brought back such commodities as grains, forest products and metals. In French historiography too, it is unanimously emphasized that the trade with the Dutch merchants made definitive contribution to the development of French wine production in the seventeenth and eighteenth centuries.⁵⁾ Among others, the invention of brandy was probably the most important feature. After all, wine constituted an integral and indispensable part of the Dutch international trade along Europe's Atlantic coast.

Indeed, we are already quite familiar with the wine production in Southern European countries and the circulation of their products by the Dutch marine transporters in the seventeenth century, but our knowledge about the end consumer remains still very limited. Apart from the re-exports to Northern Europe, was the remaining quantity all consumed in the Dutch Republic? This is an open question that several historians working in this field have repeatedly referred to. Here are some quotations of the relevant works.

“It would be moreover interesting to know, probably by means of the Dutch archives, who were exactly drinking wine from the Guyenne then in the United Provinces.”⁷⁶⁾

Christian Huetz de Lemp, 1975

“Wine, if the scraps of evidence at our disposal are any guide, ranked among the most important trade goods of the seventeenth and eighteenth centuries. Regrettably, nearly nothing is known about the organisation and development of the wine trade in the Republic.”⁷⁷⁾

Jan de Vries & Ad van der Woude, 1997

“Because of the emphasis that is placed on the export of precious metals the extent of the export of other goods from the fatherland is often underestimated. [...] Such diverse items as...wine and beer shipped out to Batavia on the East Indiamen.”⁷⁸⁾

Femme S. Gaastra, 1991

“Despite these uncertainties, it is safe to say that the demand of the Dutch fleet greatly contributed to the strength of the Dutch market for imported wines and brandies”.⁷⁹⁾

Henriette de Bruyn Kops, 2007

“It may not be the most obvious way to approach the subject of the East India Company with the thoughts on the Atlantic, but I don’t think it is odd”.¹⁰⁾

David Hancock, 2002

Except the lack of relevant archives which would certainly make a systematic analysis more difficult, there are also a number of possible reasons for this understudied subject. Firstly, it is probably related to the fact that wine has never been a genuine product of the Low Countries. Its high commercial value as a commodity is certainly undeniable, but in the end a detailed research into the consumption alone was not an ideal topic on which a Dutch historian could have proved the significance. As a matter of course, it has been historians of Southern European countries, if not always of wine-producing regions, who have passionately devoted their research to the tears of Bacchus in the past. Secondly, the historiography of the VOC too has always shown more interest in the commodities from the East Indies that yielded handsome profits to the Company than common European products that only constitutes a part of

the expenditure for fitting out the fleets. Or perhaps, spices and porcelains have long looked simply more appealing than wine and cheese from research point of view. Thirdly, it has been partly because of the institutional restriction in the discipline of history. A field of research is often traditionally determined by a specific geographic area and period. Connecting a commercial history of Europe with that of Asian regions must have proved to be an audacious attempt that was scientifically considered incorrect. Moreover, language barriers existed that made research in French, Dutch and Iberian languages challenging. Empirically it is hardly imaginable that, for instance, a French historian working on an early modern Franco-Dutch commercial relationship uses Dutch archives to this end.¹¹⁾

One clear advantage of the investigation into the European wines reshipped to the Dutch East Indies was that the VOC was granted by the States-General of the Netherlands a monopoly on Dutch trade in Asia. It allows us to focus on, in principal, the Company's archives to find out the practical details of overseas Dutch wine consumption. The situation would be slightly different with the other European activities in Asia: the Portuguese were more self organised independent enterprises whereas the English were less reluctant to grant more private commercial ventures than the VOC. Among the VOC's infinite collection of documents, this essay will mainly look at two series of record. Firstly, there were the rules and regulations that defined the variety and quantity of the foodstuffs consumed on board during the journey. They existed from the very beginning of the Company's history and came to be printed since 1680. Such a brochure so-called 'List of victuals and order on the rations (*Lyste van de victualien, en ordre op de rantsoenen*)' was distributed to the principal crew members to supervise the food and drink consumption during the long sea voyage to Asia.¹²⁾ Secondly, the account books of the Amsterdam and the Zeeland chambers existed but very fragmentarily only for the first few decades of the seventeenth century. An analysis of bookkeeping documents will enable us to confirm the reality of European wine supply to the VOC and to understand the extent to which the ships followed the instructions concerning the ration. In addition, we will look at various sources, like travelogues, to grasp the usage and daily consumption of wine on board. Hopefully the combination of different archives will enable one to demonstrate the importance of the VOC in European wine industry at that time.

1. Victualling and rationing on board

While the principal accounting archives of the Company—ledgers and journals—are very fragmentary, one reliable method to measure the Company's demand of wine is to look at the food regulations that the directors (*Heren XVII*) created and modified repeatedly during the course of the seventeenth century. The list of provisions indicates the type of foodstuffs and drinks, as well as their quantities required for each hundred persons for a given period of time. Since we also have at our disposal the very detailed statistics of the number of ships and crews on board that left for the East Indies, it is possible to make a rough estimate of European wines reshipped for Asian waters.

On the assumption that the food regulation was respected—which is very likely the case—the quantity of wine required by the Company was already considerable from the beginning of the seventeenth century. According to one of the earliest resolutions adopted in February 1603, the distribution of wine was fixed as follows.

Table 1. Quantities of wine for distribution on board, for hundred men and for twenty-seven months¹³⁾

Spanish wine (<i>Spaensche wijn</i>)	28 <i>toelasten</i>	(17,203 litres)
French wine (<i>France wijn</i>)	20 <i>pijpen</i>	(9,216 litres)
Tinto wine (<i>wijntint</i>)	2 <i>aemen</i>	(307 litres)
Brandy (<i>brandewijn</i>)	4 <i>quartel</i>	(230 litres)
Total		26,956 litres

(Sources: Pieter van Dam, *Beschryvinge van de Oostindisch Compagnie*, 's-Gravenhage: M. Nijhoff, 1927, vol. 1-I, pp. 516–18.)

Having fitted out twelve ships with 1,180 persons in total in 1603, the Company was supposed to load, in theory, approximately 203,000 litres of Spanish wine and 108,750 litres of French wine for distribution on board for this one year alone. As the number of persons sent to the East Indies increased decade after decade, to reach 317,800 in total in the entire seventeenth century, it would not be so difficult to envisage the economic impact that the Company would have made to the wine trade in Europe.¹⁴⁾

The number of months in journey anticipated for the provisions increased from twenty-seven to thirty in 1610, and this arrangement would remain for the rest of the first half of the seventeenth century. Considering the average duration of the journey from the Netherlands to an Asian destination (mostly Batavia)—166 days in the seventeenth century—provisions for thirty months seem to be certainly exaggerated, nevertheless the Dutch East India Company did not possess its stronghold at least before the creation of Batavia in 1619 and the ships were therefore obliged to carry sufficient food and drinks for a round trip as well as for the journey within the East Indies.

Table 2. Quantities of wine for distribution on board, for hundred men and for thirty months

Spanish wine (<i>Spaensche wijn</i>)	30 <i>toelasten</i>	(18,432 litres)
French wine (<i>France wijn</i>)	24 <i>pijpen</i>	(11,059 litres)
Tinto wine (<i>wijntint</i>)	2 <i>aemen</i>	(307 litres)
Brandy (<i>brandewijn</i>)	4 <i>oxhoofd</i>	(922 litres)
Total		(30,720 litres)

(Source: NA, VOC 4967)

Between 1610 and 1650, approximately 104,700 persons embarked for the East Indies. Theoretically this figure would have required approximately 804,100 litres of wine and brandy per year. The details are as follows.

Table 3. Quantities of wine required according to the food regulation, 1610–1650 (in litres)

		Spanish wine	French wine	Tinto wine	Brandy	Total	Annual average
	Quantity required per hundred	18,432	11,059	307	922	30,720	
	Number of people on board						
1610–1620	19,000	3,502,080	2,101,210	58,330	175,180	5,836,800	583,680
1620–1630	23,700	4,368,384	2,620,983	72,759	218,514	7,280,640	728,064
1630–1640	28,900	5,326,848	3,196,051	88,723	266,458	8,878,080	887,808
1640–1650	33,100	6,100,992	3,660,529	101,617	305,182	10,168,320	1,016,832
Total	104,700	19,298,304	11,578,773	321,429	965,334	32,163,840	
Annual Average	2,618	482,458	289,469	8,036	24,133		804,096

(Sources: Bruijn, Gaastra and Schöffer, *Dutch-Asiatic Shipping*, vol. I, p. 144)

For the lack of the statistics, we are not quite able to analyze the above figures in proportion to the entire Dutch wine import for the first half of the seventeenth century. However some evidences imply that the quantities of French wine demanded by the VOC probably occupied a prominent place in the French wine export. Between 1645 and 1650, an annual average of 1,630 *tonneaux* (approximately 1,468,540 litres) of wine were shipped from Bordeaux to the United Provinces (mostly to Amsterdam, Middelburg or Rotterdam).¹⁵⁾ The quantity of French wine that the Company needed for the same period amounted to 25% of this figure, that is about 366,000 litres per year. Considering that Bordeaux and its vast wine-producing hinterland were the major supplier of wine to the United Provinces, it can be concluded that the VOC was a major client already during the first half of the seventeenth century.

The number of months anticipated for the provisions began to decrease gradually during the third quarter of the seventeenth century.¹⁶⁾ Finally it was settled at nine months in 1673 and this arrangement would remain more or less unchanged until the very end of the Company's history in 1795. Now the directors were convinced that provisions only for the onward journey were sufficient: for the return journey, the ships were supposed to procure food-stuffs and drinks that were locally available, such as rice and arrack. Moreover, the revision of the food regulation certainly had the purpose to retrench the expenditures. Better conservation methods and improvement of quality allowed the Company to stow more barrels of water and beer in the hold of the ships. In the long term, the quantity of wine allocated to the provisions on board fell off by as much as 85% in the course of the seventeenth century: 4,454 litres of wine and brandy for nine months instead of 30,720 litres for thirty months.

Table 4. List of drinks loaded as provisions for hundred men and for nine months (1680)¹⁷⁾

French wine	2 halve legger	(614 litres)
Spanish wine	3 toelast	(1,843 litres)
Brandy	3 toelast	(1,843 litres)
Tinto wine	2 halve aam	(154 litres)
Water	30 toelast	(18,432 litres)
Bier	100 tonne	(15,360 litres)

Despite the sharp decrease of wine for distribution on board, the demand for wine by the VOC remained stable and the quantity required was still not negligible. In fact, its importance is likely to be very much comparable to that of the re-export towards the Baltic regions. While the Company needed approximately 3,600,000 litres of wine and brandy in order to send off 80,800 people towards the East Indies during the last two decades of the seventeenth century, the quantity of wine re-exported to the Baltic countries from Amsterdam stood at around 2,220,000 litres for the same period.¹⁸⁾

Table 5. Quantities of wine required by the VOC and re-exported to the Baltic countries (1681–1700)

	Quantity required by the VOC	Quantity re-exported to the Baltic from Amsterdam
1681–1690	1,683,612	1,424,563 (6,183 <i>oxhoofd</i>)
1691–1700	1,915,220	795,110 (3,451 <i>oxhoofd</i>)
Total	3,598,832	2,219,673
Annual average	179,942	110,984 (in litres)

Furthermore, different types of wine and brandy indicated in the food regulation were not the only quantity carried on board. On one hand, the VOC headquarters in the Dutch Republic also shipped necessities of life in the East India, including wine. In spite of the total absence of invoices for the VOC cargos, it is possible to reconstruct composition of the goods by examining an archive called ‘results of the general demand (*bevindingen op de generale eysch*)’. For example, the ship called *Eiland Mauritius*, sailing to Batavia in 1677 on behalf of the Delft chamber, contained the following list of European wines.¹⁹⁾

Table 6. List of wines found in the cargo of *Eiland Mauritius* (1677)

Spanish wine	54 legger	(33,178 litres)
Rhenish wine	6.5 legger	(3,994 litres)
French wine	10 legger	(6,144 litres)
Brandy	37 half aam	(2,842 litres)
Total		46,157 litres

With 225 persons on board, the *Eiland Mauritius* was supposed to have 10,022 litres of wines and brandy as provisions to distribute during the journey.²⁰⁾ But in reality, the ship carried 46,157 litres in total. It seems therefore reasonable to suppose that the VOC ship used to carry more quantities than indicated by the food regulations, probably four to five times larger, as this example suggests. On the other, it should be also noted that, up to this point, we only have discussed the quantities of wines and brandy that the VOC's administrative documents recorded. In other words, the statistics so far have not included those in the personal luggage, that were not only for personal usage but also for private trade. For that aspect, we have little research solutions for a quantitative analysis.²¹⁾

2. Procurement of European wines by the VOC

Though it's called the United East India Company, the constituting chambers (*kamers*) were not financially integrated: each of them had different account books whose keeping methods could be even slightly different from each other. This complication in management certainly makes it more difficult to get the whole picture of overall demand for European wines by the VOC. Nevertheless, the existing ledgers of the two largest chambers, Amsterdam and Zeeland, for some fragmentary periods during the first quarter of the seventeenth century provide us with some promising leads as to how the Company made the use of European wines in their real shipments to the East Indies.

The ledger of the Amsterdam chamber for 1605 and 1606 furnish concrete and reliable evidences for the importance of European wines right from the very beginning. For these two years, the leading chamber of the VOC invested respectively 25,885 and 47,897 guilders for the procurement of wine.²²⁾ Of the annual expenditure on the ship equipments (*equipage*), those figures accounted for 5.6% in 1605 and 6.3% in 1606.²³⁾

In terms of the composition, the Company purchased eight different appellations of wine in 1606, namely, Spanish wine, Canary wine, Alicante wine, tinto wine, sec, French wine, cognac, brandy.²⁴⁾ Of 47,897 guilders paid in total in 1606, the wine from Spanish vineyards represented 70%. As for the buying prices, brandy clearly stands out. It cost about 0.6 guilder per litre while tinto wine, the most expensive wine of all, only cost 0.2 guilder per litre. In general, wines of Spanish origin were higher priced than those of France. It was not necessarily due to the evaluation in the international market but to the higher price level in Spain than in France. Taste wise, French wines probably enjoyed a better reputation. The VOC was obliged to use more costly Spanish wines mostly because French wine did not keep for a long time. Different from the Atlantic coastal trade in Europe, one way journey alone took eight to nine months on average. Moreover, such transoceanic navigation inevitably traversed different climate zones at various latitudes. Among quite many testimonies on this point, a contemporary French voyager François Pyrard affirmed that "it has to be the Spanish wine, because the French wine does not keep in the Torrid Zone. We brought some French wine which went bad before reaching the equator".²⁵⁾ The VOC's food regulation of 1603, too, instructed to consume French wine first and Spanish wine afterwards.

The bookkeeping records of the Amsterdam chamber also prove that the VOC provided large enough quantities of wine for its shipment to Asia, as is indicated in the food regulations. In 1605 and 1606, twelve ships departed for the East Indies on behalf of Amsterdam chamber, with at least 950 persons on board.²⁶⁾ Approximately 27,000

litres of wines and brandy being required for every one hundred person during the first decade of the seventeenth century, the Amsterdam chamber required 256,500 litres for these two years. And the ledger for the same period shows approximately 488,000 litres of wine and brandy. Considering that a ship always carried a quantity several times larger than indicated by the food regulations, those figures should appear quite logical and explicable.

In the same way as the Amsterdam chamber, the ledger of the Zeeland exists for two fragments of period: 1602–1607 and 1615–1628.²⁷⁾ To cut a long story short, a thorough investigation into this series of documents would lead us to the similar conclusions as in Amsterdam. One original observation to draw may be, however, that the delicate political relations between the Dutch Republic and Spain did not really affect the business of the VOC. We can hardly recognize any fluctuation in the supply of Spanish wines to the Company, before and after the Twelve Year's Truce between 1609 and 1621.²⁸⁾ The fact that wines from Spain occupied predominant place in the Dutch commercial activities in the East Indies appears all the more paradoxical since Spain had been an almost irreconcilable enemy of long standing from the second half of the sixteenth century.

3. Ways of consumption²⁹⁾

The heavy demand of wine in Europe created by the VOC did not always mean a heavy consumption in a daily life at sea. According to the studies by J. de Hullu, roughly speaking, the ration of drinks on board consisted of 1.5 litres of water every day, 75 ml to 300 ml of Spanish wine either every third day or three days per week, 150 ml to 600 ml of French wine, 900 ml to 1.5 litres of bier and 25 ml to 75 ml of brandy.³⁰⁾ The relatively uneven quantities imply that the distribution of those drinks were more complex in reality. Firstly, people on board consumed water and beer at the early stage of the journey because those drinks naturally spoiled more quickly than wine and brandy. In other words, the further a ship went from Europe, the more alcoholic the ration became! Secondly, the ration fluctuated depending on the weather condition. It was reduced under the heat, particularly between the equator and the Cape of Good Hope. And more quantities were distributed in the cold and in a stormy weather. For the same reason, the directors of the VOC applied from 1695 onward two different rationing systems: one for the winter departure and another for the summer. Thirdly, there were a number of occasions where people could enjoy an extra quantity. Such feasts as Christmas and Easter were among the best examples. A pastor, who was always on board, naturally led the celebration. When the ship passed through danger ocean areas, such as the *Barles* off Lisbon and the *Abrolbas* off Rio de Janeiro, the crew also organized festivities. Likewise, they administered similar rites called 'the baptism of the sea (*zeedooop*)' to celebrate the passage of the equator and other straits. Fourthly, the ration of wine might possibly change depending on the number of sick, for certain quantity was always reserved for medical usage and treatments. It was always French wine and brandy that were intended for this purpose. Finally, it was also up to the leadership and the common sense of the officers on board. Though the ration for the cabin allowed far more abundant foods and drinks not only in quantity but also in quality, their consumption could have always gone immoderate. Such an indiscreet conduct might often result in the cutback of ration for the ordinary crew.

Conclusion

This essay set out to investigate the demand of European wines by the Dutch East India Company in the seventeenth century and to integrate such circulation into the historical context of the European trade along the Atlantic coast for the same period. With the evidences collected from the two VOC archives in particular—the food regulations and the accounting books—I argued that the quantity of wine required by the VOC was at least as important as that for the Baltic trade in the Dutch Republic. Some historians would be certainly reluctant to hear that the principal consumers of these wines were the Europeans themselves sent off to the East Indies, but the fact does depreciate neither its economic impact nor the value of such market in Asia. Rather we seem to have so far underestimated the massive presence of the Europeans in Asia as potential consumer for European goods. It has to be reminded that the VOC archives alone registered 317,800 European expatriates in the seventeenth century and the figure would double in the following century.

In connection with this study, it seems possible to suggest a number of new research directions. First, the VOC's documents recorded in the East India would surely tell us how Europeans wines were consumed on the spot. Was there consumption by any local population, too? To answer this question, Japan probably provides an illustrative example.³¹⁾ Second, it should be highly feasible to conduct the same research with other European East India Companies, namely, the English and French. Ultimately, it would allow us to formulate a hypothesis that, for instance, the eighteenth century Bordeaux owed part of its economic success, not only to the Atlantic but also to the East Indies. Third, it would be interesting to extend the research to other European products that were also in high demand. Dutch historians would be no doubt more passionate about dairy products such as butter and cheese, and Portuguese historians would be possibly keen to find out about olive oil in early modern Asia!

By integrating the East Indies more into the European, Atlantic and even American contexts, we could probably look at the traditional European economic history in a wider perspective. Likewise and moreover, we, particularly non-European historians, would have to make more investigations into how current Eurocentric sense of values has become so prevalent on different parts of the planet. A globalization of early modern European wines will potentially provide modest but promising clues for such a reconstruction in the history discipline.³²⁾

Notes

- 1) Maison franco-japonaise de Tokyo / Institut français de recherche sur le Japon (UMIFRE 19, CNRS-MAEE).
- 2) « *Hors d'Europe, le vin a suivi les Européens* » : Fernand Braudel, *Civilisation matérielle, économie et capitalisme, XVe–XVIIIe siècle. Les structures du quotidien : le possible et l'impossible*, Paris: Armand Colin, 1979, p. 263.
- 3) For a general summary on the subject, see bibliography at the end. Just for reference, the list exceptionally includes those studies that focus on wine and the Dutch Republic in the eighteenth century, as well.
- 4) In contrast to French wines exported to the Dutch Republic that have been thoroughly studied, it seems the impact of Spanish wines has not yet been satisfactorily investigated. Rhenish wine was, of course, one of the major brands supplied to Northern Europe through the Dutch ports, but this essay does not deal with it for a reason: the VOC did not officially use it as provisions.
- 5) For instance, Roger Dion devoted a whole chapter on this issue: *Histoire de la vigne et du vin en France. Des origines au XIXe siècle*, Paris, 1959, pp. 423–60—chapter XIII.

- 6) « Il serait d'ailleurs intéressant de savoir, peut-être grâce aux archives hollandaises, qui exactement buvait alors du vin de Guyenne dans les Provinces-Unies » : Christian Huetz de Lempis, *Géographie du commerce de Bordeaux à la fin du règne de Louis XIV*, Paris-La Haye: Mouton, 1975, pp. 105–6. Guyenne was a pre-revolutionary appellation of south-western France.
- 7) Jan de Vries & Ad van der Woude, *The First Modern Economy*, Cambridge: Cambridge University Press, 1997, p. 413.
- 8) Femme S. Gaastra, *The Dutch East India Company*, Leiden: Walburg Pers, 2003, p. 144.
- 9) Henriette de Bruyn Kops, *A Sprited Exchange*, Leiden: Brill, 2007, p. 240.
- 10) David Hancock, 'An Undiscovered Ocean of Commerce Laid Open: India, Wine and the Emerging Atlantic Economy, 1703–1813', in H. V. Bowen et al., eds., *The Worlds of the East India Company*, Suffolk: Boydell Press, 2002, pp. 153–4; as a product of much research illustrating the relatively new approach, the author has quite recently published a book: *Oceans of wine*, New Heaven: Yale University Press, 2009.
- 11) It seems to me that the multilingual approach to the early modern French history experimented by Pierrick Pourchasse is so exceptional as to uncover new horizons: see *Le Commerce du Nord. Les échanges commerciaux entre la France et l'Europe septentrionale au XVIIIe siècle*, Rennes: Presses Universitaires de Rennes, 2006.
- 12) Nationaal Archief, The Hague, Veregnide Oost-Indische Compagnie (henceforth NA, VOC) 4967 and 4968 in particular.
- 13) Other drinks include water, bier and lemon juice.
- 14) For the numbers of people leaving for the East India, see J. R. Bruijn, F. S. Gaastra and I. Schöffers, *Dutch-Asiatic Shipping in the 17th and 18th Centuries*, The Hague: Martinus Nijhoff, 1987, vol. I, p. 144 and 170. The figure doubles in the eighteenth century, or 655,200 persons set out between 1700 and 1795.
- 15) Bertrand Gautier, 'Commerce et marchand bordelaise dans la première moitié du XVIIème siècle, 1630–1660', *Bulletin du centre d'Histoire des Espaces Atlantiques*, no. 7, 1995, pp. 25–7. The article provides precious data for valid statistics for the export from Bordeaux remain still rare for this period.
- 16) It was reduced from 30 to 18 months in 1649, to 15 months in 1656 and eventually to 9 months in 1673. Dam, *Beschryvinge van de Oostindische Compagnie*, vol. I-1, pp. 512–13.
- 17) NA, VOC 4968.
- 18) Bruijn, Gaastra and Schöffers, *Dutch-Asiatic Shipping*, p. 144; Vries and Woude, *The First Modern Economy*, pp. 412–14.
- 19) Bruijn, Gaastra and Schöffers, *Dutch-Asiatic Shipping*, pp. 219–21. Needless to say, the list of those necessities is long enough to cover hundreds of items.
- 20) For the number of voyagers on board, see the online database below; <http://www.historici.nl/Onderzoek/Projecten/DAS/detailVoyage/91575>
- 21) For Dutch Ceylon, we have a superb study on the private trade. See Albert van den Belt, *Het VOC-bedrijf op Ceylon*, Zutphen: Walburg Pers, 2008.
- 22) NA, VOC 7169.
- 23) The calculation based upon the figures given in J. P. de Korte, *De Jaarlijkse Financiële Verantwoording in de VOC*, Leiden: Martinus Nijhoff, 1984, p. 10.
Equipage is the term employed by the Company, as well as by the contemporary marine merchants, to designate all the provisions necessary to put a ship in the state to navigate. It includes not only foodstuffs but also sails, ropes or even arms. For the definition, see for example Kristof Glamann, *Dutch-Asiatic Trade, 1620–1740*, Copenhagen: Danish Science Press, 1958, pp. 42–3.
- 24) NA, VOC 7169. By the way, 'cognac' here is not yet a brandy but a wine. On the subject, see L. M. Cullen, *The Brandy Trade under the Ancien Régime*, Cambridge: Cambridge University Press, 1998, p. 9.
- 25) « il faut que ce soit du vin d'Espagne, car le vin de France ne se peut garder sous la zone torride. Nous en avons porté qui se gâta avant qu'on fût à la ligne » : François Pyrard, *Voyage de Pyrard de Laval aux Indes Orientales, 1601–1611*, Paris: Chandeigne, 2008, p. 888–9—originally published in 1611, this edition is based upon that of 1619.
- 26) Yet, for the four ships out of twelve, we have no precise information on the number of persons on board. For details, see <http://www.historici.nl/Onderzoek/Projecten/DAS/>
- 27) NA, VOC 13784–13785 and 13790–13793. We do not go into great detail here.
- 28) It is generally considered that the warfare between the Dutch Republic and Spain heavily affected the economic situation

- between two countries. See Jonathan Israel, *The Dutch Republic and the Hispanic World, 1606–1661*, Oxford: Clarendon Press, 1982.
- 29) This is just a sketch of the topic.
- 30) J. R. Bruijn & J. Lucassen, eds., *Op de schepen der Oostindische Compagnie. Vijf artikelen van J. de Hullu*, Groningen, 1980—originally published in 1914.
- 31) Joji Nozawa, 'Wine-drinking Culture in Seventeenth-century Japan. The Role of Dutch Merchants', in Eric C. Rath & Stephanie Assmann, *Japanese Foodways. Past and Present*, Chicago: University of Illinois Press, 2010, p. 108–25; Id. 'Wine as a Luxury at the Dutch Factory in Japan during the Second Half of the 18th Century', in Rengenier C. Rittersma, ed., *Luxury in the Low Countries*, Brussels: Flemish Interface for Cultural Heritage, 2010, p. 85–106.
- 32) See for more details, Joji Nozawa, 'Les vins européens à la conquête de l'Asie extrême : le rôle de la VOC dans l'expansion orientale du vin aux Temps modernes', PhD thesis, Université de Paris IV-Sorbonne, 2012.

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